WHAT IS CLAIMED IS:

1. An aluminosilicate glass exhibiting a density less than about 2.45 g/cm^3 and a liquidus viscosity greater than about 200,000 poises, the glass consisting essentially of the following composition as calculated in mol percent on an oxide basis: 65-75 SiO_2, 7-13 Al_2O_3, 5-15 B_2O_3,, 0-3 MgO, 5-15 CaO, 0-5 SrO, and essentially free of BaO.

2. The glass of claim 1, wherein the RO/Al_2O_3 ratio is between 0.9 and 1.2, wherein R represents Mg, Ca, Sr and Ba.

3. The glass of claim 1, wherein the glass has a strain point greater than about 650 °C.

4. The glass of claim 1, wherein the glass has a linear coefficient of thermal expansion (CTE) over the temperature range 0-300°C between 28-35 X10^{-7}/°C.

5. The glass of claim 4, wherein the glass has a strain point greater than about 660°C.

6. The glass of claim 4, wherein the glass has a melting temperature less than about 1700 °C.

7. The glass of claim 4, wherein the glass has a CTE of 28-33 X 10^{-7}/°C.

8. The glass of claim 1, wherein the glass exhibits a weight loss of less than 0.5 mg/cm^2 after immersion in a solution of 1 part 50 wt.% HF and 10 parts 40 wt. % NH_4F for 5 minutes at 30 °C.

9. The glass of claim 1, wherein the glass has a liquidus viscosity greater than about 400,000 poises.

10. A glass according to claim 1, wherein the glass has a liquidus viscosity greater than about 600,000 poises.

11. A glass according to claim 1, wherein the glass contains between 0-1 mole percent MgO when the glass contains no SrO.

12. In a flat panel display device, the improvement comprising a substrate in accordance with claim 1.

13. The flat panel display device of claim 12, wherein the substrate has an average surface roughness less than about 0.5 nm.

14. The flat panel display device of claim 12, wherein the substrate has an average internal stress less than about 150 psi.

15. A glass according to claim 1, wherein the glass has a composition consisting essentially of, as expressed in mol percent on an oxide basis: 67-73 SiO_2, 8-11.5 Al_2O_3, 8-12 B_2O_3, 0-1 MgO, 5.5-11 CaO, and 0-5 SrO.

16. The glass of claim 15, wherein the glass has a strain point greater than about 650 °C.

17. The glass of claim 15, wherein the glass has a CTE of 28-33 X 10^{-7}/°C.

18. The glass of claim 17, wherein the glass has a strain point greater than about 660°C.

19. The glass of claim 17, wherein the glass has a melting temperature less than about 1700 °C.

20. The glass of claim 17, wherein the glass has a liquidus viscosity greater than 400,000 poises.

21. The glass of claim 17, wherein the glass has a liquidus viscosity greater than about 800,000 poises

22. In a flat panel display device, the improvement comprising a substrate in accordance with claim 17.

23. The flat panel display device of claim 22, wherein the substrate has an average surface roughness less than about 0.5 nm.

24. The flat panel display device of claim 22, wherein the substrate has an average internal stress less than about 150 psi.

25. In a flat panel display device, the improvement comprising a substrate in accordance with claim 21.

26. A substrate for a flat panel display device, wherein the substrate is comprised of a flat, transparent glass exhibiting a density less than about 2.40 g/cm^3, a linear coefficient of thermal expansion (CTE) over the temperature range 0-300°C between 28-33 X10^{-7}/°C and having a liquidus viscosity greater than about 400,000 poises, the glass consisting essentially of the following composition as calculated in mol percent on an oxide basis: 65-75 SiO_2, 7-13 Al_2O_3, 5-15 B_2O_3,, 0-3 MgO, 5-15 CaO, 0-5 SrO, and essentially free

of BaO and the RO/Al_2O_3 ratio is 0.92-0.96, wherein R represents Mg, Ca, Sr, and Ba.

27. A substrate according to claim 26, wherein the glass exhibits a strain point exceeding 660 °C.

28. The substrate according to claim 26, wherein the substrate has an average surface roughness less than about 0.5 nm.

29. The substrate according to claim 26, wherein the substrate has an average internal stress less than about 150 psi.

ADD A5 >

add C2

add D1